SEQUENCE LISTING

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<120>   Nuclear Myosin I B with A 16 Amino Acid N-Terminal Extension

<130>   30151/92399

<140>   09/893,371
<141>   2001-06-27

<150>   60/214,944
<151>   2000-06-29

<160>   8

<170>   PatentIn version 3.2

<210>   1
<211>   1044
<212>   PRT
<213>   Artificial

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<223>   Nuclear Myosin 1 beta

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Val Leu Leu Glu Asn Phe Thr Ser Glu Ala Ala Phe Ile Glu Asn Leu
        35   40   45

Arg Arg Arg Phe Arg Glu Asn Leu Ile Tyr Thr Tyr Ile Gly Pro Val
    50   55   60

Leu Val Ser Val Asn Pro Tyr Arg Asp Leu Gln Ile Tyr Ser Arg Gln
65   70   75   80

His Met Glu Arg Tyr Arg Gly Val Ser Phe Tyr Glu Val Pro Pro His
                85   90   95

Leu Phe Ala Val Ala Asp Thr Val Tyr Arg Ala Leu Arg Thr Glu Arg

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                  100                   105                   110

        Arg Asp Gln Ala Val Met Ile Ser Gly Glu Ser Gly Ala Gly Lys Thr
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        Glu Ala Thr Lys Arg Leu Leu Gln Phe Tyr Ala Glu Thr Cys Pro Ala
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        Pro Glu Arg Gly Gly Ala Val Arg Asp Arg Leu Leu Gln Ser Asn Pro
        145                 150                 155                 160

        Val Leu Glu Ala Phe Gly Asn Ala Lys Thr Leu Arg Asn Asp Asn Ser
                        165                 170                 175

        Ser Arg Phe Gly Lys Tyr Met Asp Val Gln Phe Asp Phe Lys Gly Ala
                        180                 185                 190

        Pro Val Gly Gly His Ile Leu Ser Tyr Leu Leu Glu Lys Ser Arg Val
                        195                 200                 205

        Val His Gln Asn His Gly Glu Arg Asn Phe His Val Phe Tyr Gln Leu
                210                 215                 220

        Leu Glu Gly Gly Glu Glu Glu Thr Leu Arg Arg Leu Gly Leu Glu Arg
        225                 230                 235                 240

        Asn Pro Gln Ser Tyr Leu Tyr Leu Val Lys Gly Gln Cys Ala Lys Val
                        245                 250                 255

        Ser Ser Ile Asn Asp Lys Ser Asp Trp Lys Val Met Arg Lys Ala Leu
                        260                 265                 270

        Ser Val Ile Asp Phe Thr Glu Asp Glu Val Glu Asp Leu Leu Ser Ile
                        275                 280                 285

        Val Ala Ser Val Leu His Leu Gly Asn Ile His Phe Ala Ala Asp Glu
                290                 295                 300

        Asp Ser Asn Ala Gln Val Thr Thr Glu Asn Gln Leu Lys Tyr Leu Thr
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        Arg Leu Leu Gly Val Glu Gly Thr Thr Leu Arg Glu Ala Leu Thr His
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Arg Lys Ile Ile Ala Lys Gly Glu Glu Leu Leu Ser Pro Leu Asn Leu
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Glu Gln Ala Ala Tyr Ala Arg Asp Ala Leu Ala Lys Ala Val Tyr Ser
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Arg Thr Phe Thr Trp Leu Val Arg Lys Ile Asn Arg Ser Leu Ala Ser
    370                 375                 380

Lys Asp Ala Glu Ser Pro Ser Trp Arg Ser Thr Thr Val Leu Gly Leu
385                 390                 395                 400

Leu Asp Ile Tyr Gly Phe Glu Val Phe Gln His Asn Ser Phe Glu Gln
                405                 410                 415

Phe Cys Ile Asn Tyr Cys Asn Glu Lys Leu Gln Gln Leu Phe Ile Glu
            420                 425                 430

Leu Thr Leu Lys Ser Glu Gln Glu Glu Tyr Glu Ala Glu Gly Ile Ala
        435                 440                 445

Trp Glu Pro Val Gln Tyr Phe Asn Asn Lys Ile Ile Cys Asp Leu Val
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Glu Glu Lys Phe Lys Gly Ile Ile Ser Ile Leu Asp Glu Glu Cys Leu
465                 470                 475                 480

Arg Pro Gly Glu Ala Thr Asp Leu Thr Phe Leu Glu Lys Leu Glu Asp
                485                 490                 495

Thr Val Lys Pro His Pro His Phe Leu Thr His Lys Leu Ala Asp Gln
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Lys Thr Arg Lys Ser Leu Asp Arg Gly Glu Phe Arg Leu Leu His Tyr
        515                 520                 525

Ala Gly Glu Val Thr Tyr Ser Val Thr Gly Phe Leu Asp Lys Asn Asn
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Asp Leu Leu Phe Arg Asn Leu Lys Glu Thr Met Cys Ser Ser Met Asn
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Pro Ile Met Ala Gln Cys Phe Asp Lys Ser Glu Leu Ser Asp Lys Lys
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Arg Pro Glu Thr Val Ala Thr Gln Phe Lys Met Ser Leu Leu Gln Leu
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Val Glu Ile Leu Arg Ser Lys Glu Pro Ala Tyr Ile Arg Cys Ile Lys
              595             600             605

Pro Asn Asp Ala Lys Gln Pro Gly Arg Phe Asp Glu Val Leu Ile Arg
         610             615             620

His Gln Val Lys Tyr Leu Gly Leu Met Glu Asn Leu Arg Val Arg Arg
    625             630             635             640

Ala Gly Phe Ala Tyr Arg Arg Lys Tyr Glu Ala Phe Leu Gln Arg Tyr
              645             650             655

Lys Ser Leu Cys Pro Glu Thr Trp Pro Met Trp Ala Gly Arg Pro Gln
              660             665             670

Asp Gly Val Ala Val Leu Val Arg His Leu Gly Tyr Lys Pro Glu Glu
              675             680             685

Tyr Lys Met Gly Arg Thr Lys Ile Phe Ile Arg Phe Pro Lys Thr Leu
    690             695             700

Phe Ala Thr Glu Asp Ser Leu Glu Val Arg Arg Gln Ser Leu Ala Thr
705             710             715             720

Lys Ile Gln Ala Ala Trp Arg Gly Phe His Trp Arg Gln Lys Phe Leu
              725             730             735

Arg Val Lys Arg Ser Ala Ile Cys Ile Gln Ser Trp Trp Arg Gly Thr
              740             745             750

Leu Gly Arg Arg Lys Ala Ala Lys Arg Lys Trp Ala Ala Gln Thr Ile
         755             760             765

Arg Arg Leu Ile Arg Gly Phe Ile Leu Arg His Ser Pro Arg Cys Pro
    770             775             780
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Glu Asn Ala Phe Phe Leu Asp His Val Arg Ala Ser Phe Leu Leu Asn
785   790   795   800

Leu Arg Arg Gln Leu Pro Arg Asn Val Leu Asp Thr Ser Trp Pro Thr
            805   810   815

Pro Pro Pro Ala Leu Arg Glu Ala Ser Glu Leu Leu Arg Glu Leu Cys
            820   825   830

Met Lys Asn Met Val Trp Lys Tyr Cys Arg Ser Ile Ser Pro Glu Trp
            835   840   845

Lys Gln Gln Leu Gln Gln Lys Ala Val Ala Ser Glu Ile Phe Lys Gly
    850   855   860

Lys Lys Asp Asn Tyr Pro Gln Ser Val Pro Arg Leu Phe Ile Ser Thr
865   870   875   880

Arg Leu Gly Thr Glu Glu Ile Ser Pro Arg Val Leu Gln Ser Leu Gly
            885   890   895

Ser Glu Pro Ile Gln Tyr Ala Val Pro Val Val Lys Tyr Asp Arg Lys
            900   905   910

Gly Tyr Lys Pro Arg Pro Arg Gln Leu Leu Leu Thr Pro Ser Ala Val
            915   920   925

Val Ile Val Glu Asp Ala Lys Val Lys Gln Arg Ile Asp Tyr Ala Asn
    930   935   940

Leu Thr Gly Ile Ser Val Ser Ser Leu Ser Asp Ser Leu Phe Val Leu
945   950   955   960

His Val Gln Arg Glu Asp Asn Lys Gln Lys Gly Asp Val Val Leu Gln
            965   970   975

Ser Asp His Val Ile Glu Thr Leu Thr Lys Thr Ala Leu Ser Ala Asp
            980   985   990

Arg Val Asn Asn Ile Asn Ile Asn Gln Gly Ser Ile Thr Phe Ala Gly
            995   1000   1005

Gly Pro Gly Arg Asp Gly Ile Ile Asp Phe Thr Ser Gly Ser Glu

Leu Leu Ile Thr Lys Ala Lys Asn Gly His Leu Ala Val Val Ala
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Pro Arg Leu Asn Ser Arg
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<210> 2
<211> 16
<212> PRT
<213> Artificial

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<223> N-terminal 16 amino acid extension

<400> 2

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<211> 3661
<212> DNA
<213> Artificial

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<223> NMI Beta

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tgtcctgctg gagaatttca ccagtgaggc tgccttcatt gagaacctcc ggcggcggtt   180

ccgggagaac ctcatttata cctacatcgg tcctgtccta gtctctgtca atccctaccg   240

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ccccgtggga ggccacattc tcagttacct cctggaaaag tcccgggtgg tgcaccaaaa   660

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<223>  NMI Beta Peptide Overlapping Consensus Start Site

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<212> DNA
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<223> Myosin I primer

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<210> 6
<211> 27
<212> DNA
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<220>
<223> Adapter primer

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<210> 7
<211> 24
<212> PRT
<213> Artificial

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<223> peptide encoded by 5' region of mouse NMI Beta cdna

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